# AO 121 (6/90) TO: COMMISSIONER OF PATENTS AND TRADEMARKS REPORT ON THE (USPTO) FILING OF DETERMINATION OF AN ACTION OR APPEAL P.O. Box 1450 REGARDING A COPYRIGHT Alexandria, VA 22313-1450 In compliance with the Act of July 19, 1952 (66 Stat. 814; 35 U.S.C. 290) you are hereby advised that a court action has been filed on the following patent(s) in the U.S. District Court: UNITED STATES DISTRICT COURT, DOCKET DATE FILED NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION 1:10-cv-00461 1/22/2010 DEFENDANT **PLAINTIFF Pactiv Corporation** Multisorb Technologies, Inc. et al PATENTEE PATENT NO. DATE OF PATENT See Attached See Attached Sec Attached In the above-entitled case, the following patent(s) have been included: DATE INCLUDED **INCLUDED BY** [ ] Amendment [ ] Answer [ ] Cross Bill Other Pleading DATE OF PATENT PATENT NO. **PATENT** In the above-entitled case, the following decision has been rendered or judgment issued: DECISION/JUDGMENT (BY) DEPUTY CLERK DATE **CLERK**

Tiana Davis

Michael W. Dobbins

1/25/2010

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# Case 1:10-cv-00461 Document 1-1 Filed 01/20/50/8260age 2 of 60 United States Patent [19] [11] Patent Number: 5.699

5,698,250

DelDuca et al.

[45] Date of Patent:

Dec. 16, 1997

[54]	MODIFIELD ATMOSPHERE PACKAGE FOR
	CUT OF RAW MEAT

[75] Inventors: Gary R. DelDuca, Canandaigua; Alan E. Deyo, Rushville; Vinod K. Luthra; Wen P. Wu, both of Pittsford, all of

N.Y.

[73] Assignee: Tenneco Packaging Inc., Evanston, Ill.

[21] Appl. No.: 627,137

[22] Filed: Apr. 3, 1996

[51] Int Cl.<sup>6</sup> ..... ..... A23B 4/00 426/129; 426/133; 426/392; 426/396

Field of Search \_\_\_\_\_ 53/432-434; 426/124. 426/127, 129, 133, 396, 418, 392; 206/557

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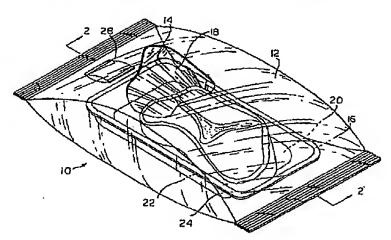
Brochure: Multiform Disiccants Inc., "FreshPax Oxygen Absorbing Packets", 1994.

Primary Examiner-Joseph W. Drodge Attorney, Agent, or Firm-Arnold, White & Durker

### [57] ABSTRACT

A modified atmosphere packaging system and method creates a modified atmosphere in a package including an inner container and an outer container. The inner container is composed at least partially of a polymeric material substantially permeable to oxygen, while the outer container is composed of a polymeric material substantially impermeable to oxygen. After a food product such as raw meat is placed within the inner container, the inner container is flushed with a desired mixture of gases to substantially remove oxygen from the inner container. The flushed inner container is then sealed and inserted into the outer container without sealing the outer container. Next, the outer container is flushed with the desired mixture of gases to substantially remove oxygen from the outer container. After flushing the outer container, the outer container is sealed. An oxygen scavenger is provided in the package to substantially absorb any residual oxygen within the package,

# 24 Claims, 2 Drawing Sheets



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# United States Patent [19]

DelDuca et al.

# [11] Patent Number:

5,948,457

# [45] Date of Patent:

\*Sep. 7, 1999

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List of Oxygen Absorber References, pp. 1-32, Undated. Leward, D.A., "Metmyoglobin Formation in Beef Stored in Carbon Dioxide Enriched and Oxygen Depleted Atmospheres," Journal of Food Science vol. 35 pp. 33-37 (1970). Gill, C. O., et al., "The Use of Oxygen Scavengers to Prevent Transcient Discolouration of Ground Beef Packaged Under Controlled, Oxygen-depleted Atmospheres," Meat Science, vol. 41, No. 1, pp. 19-27, (1995).

Gill, C. O., "Extending the Storage Life of Raw Chilled Meats," Elsevier Science Ltd., S99-S109 (1990).

Primary Examiner—Joseph W. Drodge Attorney, Agent, or Firm—Amold White & Durkee

# [57] ABSTRACT

A modified atmosphere packaging method creates a modified atmosphere in a package including an inner package and an outer package. The inner package is composed at least partially of a polymeric material substantially permeable to oxygen, while the outer package is composed of a polymeric material substantially impermeable to oxygen. After a food product such as raw meat is placed within the inner package, the inner package is flushed with a desired mixture of gases to substantially remove oxygen from the inner package. The flushed inner package is then scaled and inserted into the outer package without sealing the outer package. Next, the outer package is flushed with the desired mixture of gases to substantially remove oxygen from the outer package. After flushing the outer package, the outer package is sealed. An oxygen scavenger is provided in the package to substantially absorb any residual oxygen within the package. The oxygen scavenger is activated with an oxygen uptake accelerator to increase the rate at which the residual oxygen is absorbed.

# 17 Clolms, 3 Drawing Sheets

# [54] MODIFIED ATMOSPHERE PACKAGE [75] Inventors: Gary R. DelDuca, Canandaigua; Alan E. Deyo, Rushville; Vinod K. Luthra; Wen P. Wu, both of Pittsford, all of N.Y. [73] Assignee: Tenneco Packaging Inc., Evanston, Ill. [\*] Notice: This patent is subject to a terminal disclaimer. [21] Appl. No.: 09/094,008 [22] Filed: Jun. 9, 1998 Related U.S. Application Data

[63] Continuation of application No. 08/763,719, Dec. 13, 1996, Pal. No. 5,811,142, which is a continuation-in-part of application No. 08/627,137, Apr. 3, 1996, Pat. No. 5,698,250.

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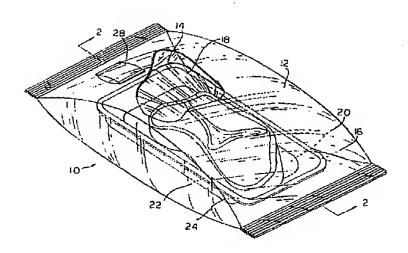
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# (12) United States Patent

DelDuca et al.

# (10) Patent No.:

US 6,183,790 B1

(45) Date of Patent:

\*Feb. 6, 2001

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Primary Examiner-Joseph W. Drodge (74) Attorney, Agent, or Firm-Jenkens & Gilchrist

### ABSTRACT (57)

A modified atmosphere packaging method creates a modified atmosphere in a package including an inner package and an outer package. The inner package is composed at least partially of a polymeric material substantially permeable to oxygen, while the outer package is composed of a polymeric material substantially impermeable to oxygen. After a food product such as raw meat is placed within the inner package, the inner package is flushed with a desired mixture of gases to substantially remove oxygen from the inner package. The flushed inner package is then sealed and inserted into the outer package without sealing the outer package. Next, the outer package is flushed with the desired mixture of gases to substantially remove oxygen from the outer package. After flushing the outer package, the outer package is sealed. An oxygen scavenger is provided in the package to substantially absorb any residual oxygen within the package. The oxygen scavenger is activated with an oxygen uptake accelerator to increase the rate at which the residual oxygen is absorbed.

# 10 Claims, 3 Drawing Sheets

# (54) MODIFIED ATMOSPHERE PACKAGE

loventors: Gary R. DelDuca, Canandaigua; Alan E. Deyo, Rushville; Vinod K. Luthra; Wen P. Wu, both of Pittsford, all of

NY (US)

Assignee: Pactiv Corporation, Lake Forest, IL

(US)

(\*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

> This patent is subject to a terminal disclaimer.

(21) Appl. No.: 09/384,517

(22) Filed: Aug. 27, 1999

# Related U.S. Application Data

Continuation of application No. 09/094,008, filed on Jun. 9, 1998, now Pat. No. 5,948,457, which is a continuation of application No. 08/763,719, filed on Dec. 13, 1996, now Pat. No. 5,811,142, which is a continuation-in-part of application (63)No. 08/627,137, filed on Apr. 3, 1996, now Pal. No. 5,698,

U.S. Cl. ...... 426/124; 426/129; 426/133; 53/432; 206/557

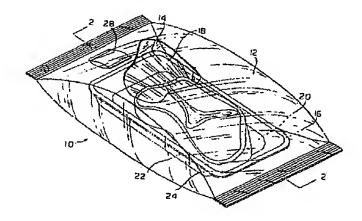
(58)426/133, 392, 396, 397, 410, 418; 206/213.1, 557; 252/188.28; 53/432, 433, 434

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Case 1:10-cv-00461 Document 1-1 Filed 01/208

# United States Patent [19]

# DelDuca et al.

# [11] Patent Number:

5,811,142

# [45] Date of Patent:

\*Sep. 22, 1998

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Brochure: :Fuji-Formost FW-3700 "High Speed Horizontal Form-Fill Seal Machine", 1992.

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Primary Examiner—Joseph W. Drodge Anorney, Agent, or Firm—Arnold, White & Durkee

# [57] ABSTRACT

A modified atmosphere packaging method creates a modified atmosphere in a package including an inner package and an outer package. The inner package is composed at least partially of a polymeric material substantially permeable to oxygen, while the outer package is composed of a polymeric material substantially impermeable to oxygen. After a food product such as raw meat is placed within the inner package, the inner package is flushed with a desired mixture of gases to substantially remove oxygen from the inner package. The flushed inner package is then sealed and inserted into the outer package without sealing the outer package. Next, the outer package is flushed with the desired mixture of gases to substantially remove oxygen from the outer package. After flushing the outer package, the outer package is sealed. An oxygen scavenger is provided in the package to substantially absorb any residual oxygen within the package. The oxygen scavenger is activated with an oxygen uptake accelerator to increase the rate at which the residual oxygen is absorbed.

# 15 Claims, 3 Drawing Sheets

[54]		ED ATMOSPHERE PACKAGE FOR RAW MEAT	
[75]	Inventors:	Gary R. DelDuca, Canandaigua; Alan E. Deyo, Rushville; Vinod K. Luthra; Wen P. Wu, both of Pittsford, all of N.Y.	
[73]	Assignee:	Tenneo Packaging, Evanston, III.	
[*]	Notice:	The term of this patent shall not extend beyond the expiration date of Pat. No. 5,698,250.	
[21]	Appl. No.:	763,719	
[22]	Filed:	Dec. 13, 1996	
Related U.S. Application Data			
[63]	Continuatio No. 5,698,2	n-in-part of Ser. No. 627,137, Apr. 3, 1996, Pat. 250.	
[51]	Int. Cl.6	A23B 4/00	
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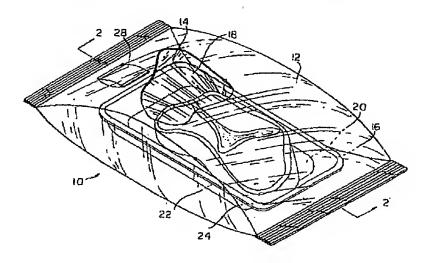
426/133, 392, 396, 397, 410, 418; 206/213.1,

557; 53/432-434, 510; 252/188.28

(List continued on next page.)

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# Case 1:10-cv-00461 Document 1-1 Filed 01/22300623P20g8145 of 60

# (12) United States Patent DelDuca et al.

(10) Patent No.:

US 6,231,905 B1

(45) Date of Patent:

\*May 15, 2001

# (54) SYSTEM AND METHOD OF MAKING A MODIFIED ATMOSPHERE PACKAGE COMPRISING AN ACTIVATED OXYGEN SCAVENGER FOR PACKAGING MEAT

(76) Inventors: Gary R. DelDuca, 82 Howell St., Canandaigua, NY (US) 14424; Alan E. Deyo, 66 S. Main St., Rushville, NY (US) 14544; Vinod K. Luthru, 21 Barrington Hills; Wen P. Wu, 4 Silver Pines Dr., both of Pittsford, NY (US) 14534

(\*) Notice:

This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/168,659

(22) Filed: Oct. 8, 1998

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Application: 924298; Jun. 12, 1992; De Muelenaere et al. Gill, "Extending the Storage Life of Raw Chilled Meats," Agriculture and Agri-Food Canada Research Centre; (1990).

(List continued on next page.)

Primary Examiner—Nina Bhat (74) Attorney, Agent, or Firm—Jenkeus & Gilchrist, P.C.

# (57) ABSTRACT

A packaging system and method utilizes a modified atmosphere package including a first package and a second package. The first package includes a non-barrier portion substantially permeable to oxygen, while the second package is substantially impermeable to oxygen. After a food product such as raw meat is placed within the first package, the first package is sealed and then inserted into the second package without sealing the second package so as to create a pocket between the first and second packages. The system and method first employ an oxygen reduction technique such as evacuation, gas flushing, and/or scavenging to quickly reduce the oxygen level in the pocket to a first non-zero level, and then employ an activated oxygen scavenger to further reduce the oxygen level to zero percent after the package is scaled. The oxygen scavenger is activated with an oxygen uptake accelerator to increase the rate at which the oxygen is absorbed. The oxygen scavenger is positioned external to the first package to aggressively absorb any residual oxygen within the pocket and the first package and absorb any oxygen that might seep into the modified atmosphere package.

22 Claims, 6 Drawing Sheets

